

AMENDMENTS TO THE CLAIMS

Claim 1 (original): A process for preparing a ketone comprising the reaction of cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone.

Claim 2 (original): A process as claimed in claim 1, wherein the dinitrogen monoxide source is at least one dinitrogen monoxide-containing offgas of at least one industrial process.

Claim 3 (original): A process as claimed in claim 2, wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant.

Claim 4 (currently amended): A process as claimed in claim 1 ~~any of claims 1 to 3~~, wherein cyclododecatriene is reacted with a gas mixture containing from 20 to 99.9% by weight of dinitrogen monoxide, based on the total weight of the gas mixture.

Claim 5 (currently amended): A process as claimed in claim 1 ~~any of claims 1 to 4~~, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form.

Claim 6 (currently amended): A process as claimed in claim 1 ~~any of claims 1 to 5~~, wherein the reaction is carried out at a temperature in the range from 140 to 350°C and a pressure in the range from 1 to 1000 bar.

Claim 7 (currently amended): A process as claimed in claim 1 ~~any of claims 1 to 6~~, wherein the reaction
has a conversion of cyclododecatriene in the range from 1 to 80% at a selectivity based on cyclododecadienone of at least 90%.

Claim 8 (currently amended): A process as claimed in claim 1 ~~any of claims 1 to 7~~, wherein the cyclododecatriene is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (ii) with dinitrogen monoxide to give cyclododeca-4,8-dienone.

Claim 9 (currently amended): A process as claimed in claim 1 ~~any of claims 1 to 8~~, wherein the cyclododecadienone obtained from the reaction of cyclododecatriene with dinitrogen monoxide is hydrogenated to obtain cyclododecanone.

Claim 10 (original): A process as claimed in claim 9, wherein the hydrogenation is carried out in the presence of a hydrogenation catalyst at a temperature in the range from 0 to 250°C and a pressure in the range from 1 to 325 bar.

Claim 11 (original): A process for preparing cyclododecanone, comprising the steps (I) and (II)

- (I) reacting cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone;
- (II) hydrogenating the cyclododecadienone obtained in (I) to obtain cyclododecanone.

Claim 12 (original): A process as claimed in claim 11, wherein the dinitrogen monoxide source used is at least one offgas comprising dinitrogen monoxide from at least one industrial process.

Claim 13 (original): A process as claimed in claim 12, wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant.

Claim 14 (currently amended): A process as claimed in claim 11 ~~any of claims 11 to 13~~, wherein cyclododecatriene is reacted with a gas mixture containing from 20 to 99.9% by weight of dinitrogen monoxide, based on the total weight of the gas mixture.

Claim 15 (currently amended): A process as claimed in claim 11 ~~any of claims 11 to 14~~, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form.

Claim 16 (currently amended): A process as claimed in claim 11 ~~any of claims 11 to 15~~, wherein the reaction in (I) is carried out at a temperature in the range from 140 to 350°C and a pressure in the range from 1 to 1000 bar.

Claim 17 (currently amended): A process as claimed in claim 11 ~~any of claims 11 to 16~~, wherein the reaction in (I) has a conversion of cyclododecatriene in the range from 1 to 80% at a selectivity based on cyclododecadienone of at least 90%.

Claim 18 (currently amended): A process as claimed in claim 11 ~~any of claims 11 to 17~~, wherein the cyclododecatriene used is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (I) with dinitrogen monoxide to give cyclododeca-4,8-dienone.

Claim 19 (currently amended): A process as claimed in claim 11 ~~any of claims 11 to 18~~, wherein the hydrogenation in (II) is carried out in the presence of a heterogeneous hydrogenation catalyst at a temperature in the range from 0 to 250°C and a pressure in the range from 1 to 325 bar.

Claim 20 (new): A process for preparing a ketone comprising the reaction of cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form, and wherein the cyclododecatriene is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (ii) with dinitrogen monoxide to give cyclododeca-4,8-dienone.